How To Get Started Using Microsoft Access Even If You've Never Used It Before

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Thank you for downloading this ebook.

Over the coming weeks I am going to be showing you some cool stuff you can do in MS Access. I will be sending out FREE videos and PDF documents demonstrating a wealth of techniques and information.

Some samples are

- How to create a spell checker in your Access forms
- How to run Word documents from Access
- How to interface with Excel
- Determine if your date falls on a national holiday or a weekend
- How to make your text box change color depending on your data
- Control the number of records that get printed in your report
- How to import worksheets from Excel
- Handling database corruption
- Good form and bad form design
- How to duplicate one form record into another at the touch of a button
- How to email tables, queries etc right within Access

And many many more.....

It does not matter which version of MS Access you are using. You are bound to find something useful in the content you will receive.

For FREE Access ebook and videos click here http://access-databases.com/ebook

Microsoft Access has been part of the Office suite of programs for many years. The Office suite dominates the world of desktop office software. I started using Access from version 2 onwards. My initial thoughts were that it was a wonderful user friendly development tool for beginners and expert users alike. My belief has not changed.

Microsoft over the years have listened to the concerns of users and have taken Access forward with each release. There has been some snobbery in the I.T. world towards Access. This is usually among hardened programmers and developers of large systems. In my opinion they are missing the point. You really would not use a corporate style solution for a simple desktop application for around 10 users.

The advantages as I see it are

- Access contains the best reporting tool of any development package.
- It is wonderful at cleaning up data.
- You can create a quick simple database in minutes.
- You can create more complex systems using the built in programming language
- Access can talk and integrate to other applications in the MS Office suite such as Outlook, Excel and Word.

There have been stability issues over the years due to the more data stored in the system. However, it is at this point that you know you have to upscale to a more robust solution such as Visual Basic and SQL Server. You are not going to create a flight booking system in Access for example. You could, but it would not be practical due to the volume of data you would be storing.

How should you create your Access database system?

Before doing this you really need to know your requirements. What exactly is it you want your system to do? Write down a few ideas and you will find your system will come together on paper. For example for an invoicing system we may outline as follows:

- Record customer information
- Record order information
- Mail or email each customer or supplier
- Create reports on customer information
- Create reports on invoice information
- Add product information into the system
- Record customer payment details

Already you can see a few screen ideas there. For instance we can have a screen for recording customer information. Another for payment information and another for order information.

Do we need the ability to update and delete data? Will some screens be read only? Do we need to record the time and date of the order?

Do we need to create a customer mail shot?

Do we need to create mailing labels?

Can our data be exported into Excel for accounting purposes?

You can also see that we have other components from the Office suite coming into play here. For instance a mail shot? We could mail merge our MS Access data with MS Word to create mail shots. We could do the same with mailing labels. Excel – yes we can export our data very easily into Excel for accounting or even forecasting purposes.

By fleshing out some ideas here we have not only created ideas for screens, but also we have an idea of the data storage backend. Data in Access is stored in what is called tables. In this case we would have a separate table for customers and payments. The screens we create will get it's data from it's related table. For example the customers screen will be using the table called customers to store it's data.

It is a good idea to also sketch out how you want to present the data. Do you want to see a view of how many sales you got in August? Do you want to know the total value of sales or how many overseas customers you have? To view data in this fashion in Access you set up what is known as a query. You can use this query as a basis for a report or even a screen. Queries are very powerful in Access.

There can be a tendency to add too many features into your system. This can make the system bloated and slow. We have all seen examples of this with commercial software we have bought. Try and keep it simple and only stick to what you really need to do your job. Do you really need your database to contain a built in web browser when you just as easily use IE or Firefox?

I will now take you through creating a simple system for recording customer and sales information. Bear in mind this is a general overview outlining certain Access database features. It is possible to expand this to create a full blown system.

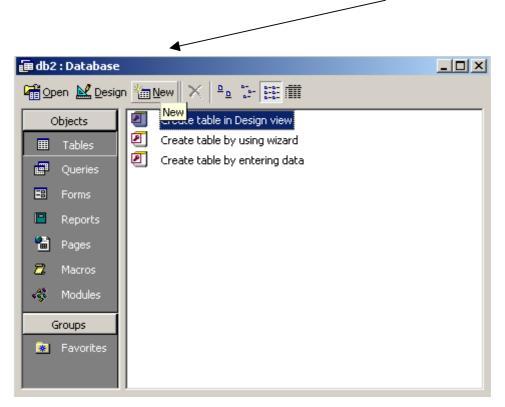
I have used Access 2000 for the examples in this ebook, but they will work just as well for any other version.

GETTING STARTED

The database window is the hub of Access. It contains all the objects you will create and use in your system. For example tables, forms, queries, macros etc. If you need to create a new form go to the database window, click the forms tab and select new form. To bring the database window back into view at any time press your F11 key.

CREATING A TABLE

At the database window click 'Tables' and then the 'New button'

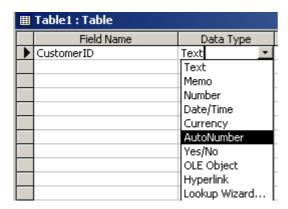


Select the design view option



Add your first field and give it a name. It is advisable to make the first field and ID or identifier field. You will see why later, but essentially it is used to link other tables to this one.

Give the field a name – In this case I have used the name CustomerID. I tend to name my fields using no spaces between the words.

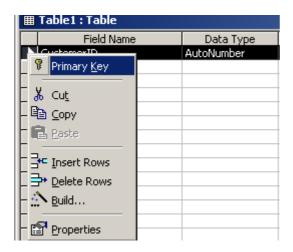


Select the data type. For ID fields it is recommended to use auto number as the data type. The auto number data type will increment your ID by one each time a record is added and saves you having to do this yourself.

Example

John Smith ID = 1Kate Wilson ID = 2Joe Bloggs ID = 3

It is also advisable to make an ID field have a Primary Key. This means that the field is unique and will have a unique ID. To do this right click the field name and select 'Primary Key' from the menu.



I will now add in additional fields.

	Field Name	Data Type
P	CustomerID	AutoNumber
	FirstName	Text
	LastName	Text
	Address1	Text
	Address2	Text
•	Address3	Text
	Tel	Text
	Email	Text
	Web	Hyperlink

I have used text as the data type for some fields and they have a length of 50. You can adjust this if you require by clicking on the field name and looking at the properties that appear. For example:



Now save the table by clicking the save button on the menu bar.

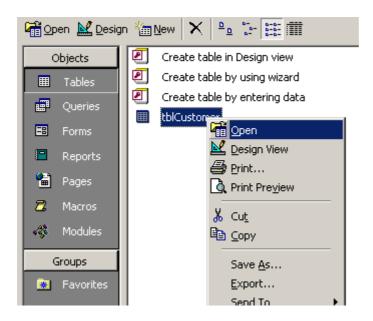
I am calling it tblCustomer. It is a good idea to prefix tables with the letters 'tbl'. We can do the same with queries and use 'gry' or for forms use 'frm'.



You now have a customers table to store information.

You could open the table and add records in this fashion if you choose.

At the database window right click the table name and select 'Open'



You will then see a table view or what is termed as a datasheet view of your table.



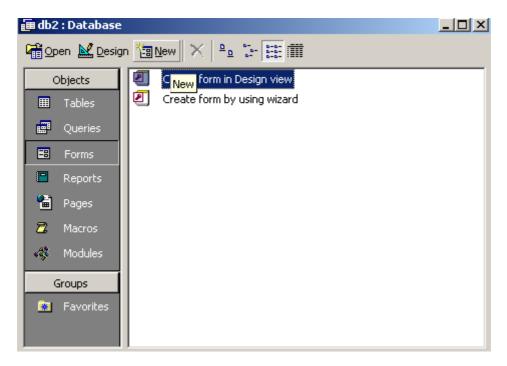
Try typing in the CustomerID field. You will notice that you cannot type in anything there. The reason for this is you set that field to be an Auto number field. It is only MS Access itself that can change values in that field.

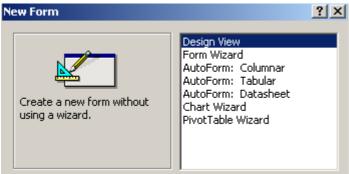
Move the cursor along to the other fields and you will find you can type something in.

Adding data in this way is fine, but it is not very user friendly or visual. A better way is to use a form.

CREATING A FORM

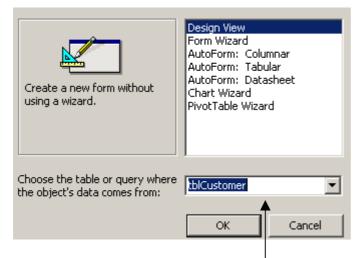
At the main database window click the forms tab and select 'New'





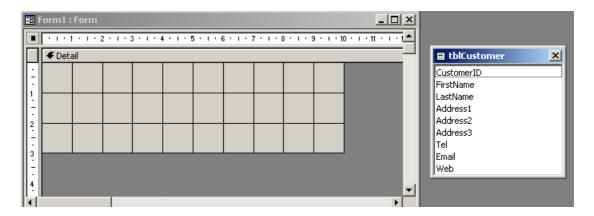
There are various options here. The form wizard option will create a quick, simple looking form. However it is better to become familiar with form design yourself and you will gain a better understanding if you select 'Design View'.

We need to bind the form to a data source. Remember the table we created earlier called 'tblCustomers' – this is what we will use as our data source.

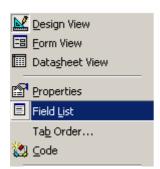


Select the data source from the dropdown box and then click the 'ok' button.

You will see a blank form has been created and also a list of fields from the table 'tblCustomer' is shown.

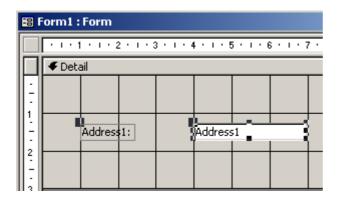


If you don't see the fields you can select them from the menu bar by selecting 'View' and then 'Field List'.



Now we are going to add a field to the form.

To do this click on a field and while holding the mouse down on it, drag it to the form. Release the mouse button and you will see your field on the form.

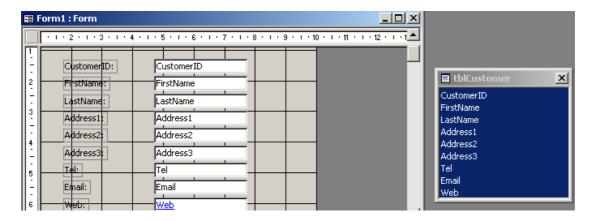


If you want to add all the fields at once to the form simply double title at the top of the field list.

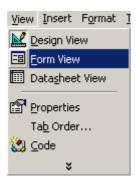


The field list will then become highlighted.

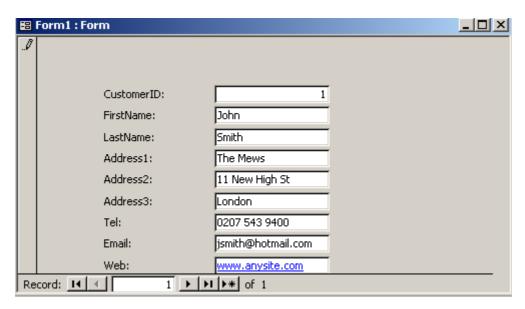
While these fields are highlighted hold your mouse down on any field and drag it over to the form. Release the mouse button and you will see all the fields on the form.



Run this form to check out how it looks. To do this go to the 'View' menu and select 'Form View'

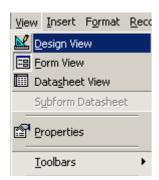


Try entering some data here



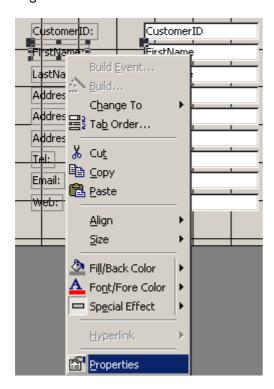
You will notice the web address turns blue to show it is a hyperlink. The data type we selected automatically handles this. This form is not the greatest design in the world and we can work on it to make it look better. If you notice the field names have their labels as one word. For example 'FirstName'. This is due to how we entered it in the original table data source. We can change the display of the label on the form and it won't in any way affect the table.

Lets now go back and make some alterations to the form. From the menu at the top select the 'View' option and then select the option 'Design View'.

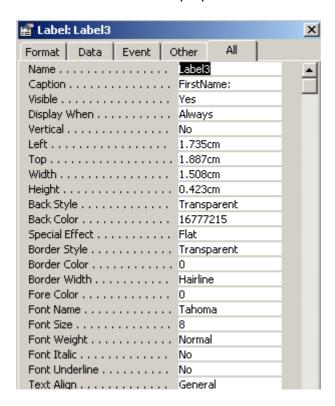


We are now back at the design view of our form.

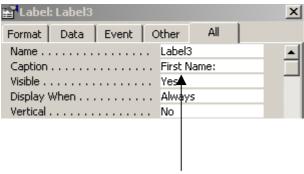
Right click on the label 'FirstName' and select the properties option.



You will now see a list of properties



We can sort out that problem of having the first name label as one word by adding a space between the words. At the caption property click on FirstName and add a space so it looks like the following:



Now the caption has a space between the words

If you now click back on the form you will notice that the label now says 'First Name' as opposed to what we had before 'FirstName'.

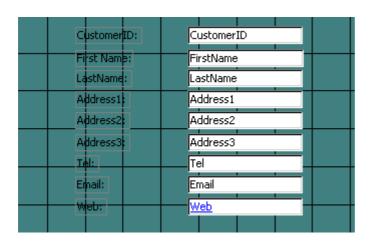
This is much clearer and can be repeated for other form fields.

To change the background colour of the form right click anywhere on it and select properties. Click the small button next to the back color property

Select a color and click ok.



I have changed my form now to have a greenish background

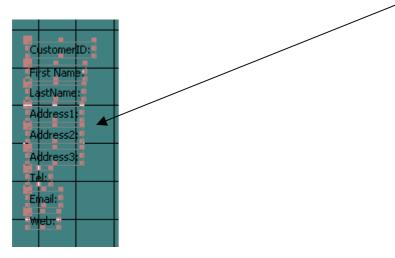


However, the label names are now hard to see so we should change them to a lighter color.

Move the mouse just above 'Customer ID' and click and hold. Now drag your mouse cursor so that you form a rectangle around the labels.

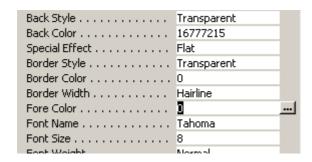


Release the mouse button and the fields will have small selector icons around them



Now just move your mouse over the labels (do not press any mouse buttons at this stage). You will see your mouse pointer turns into a hand when you hover over the labels. At this point you should right click and bring up the properties window.

Click the button next to the fore color property so that it brings up the color selector box again.

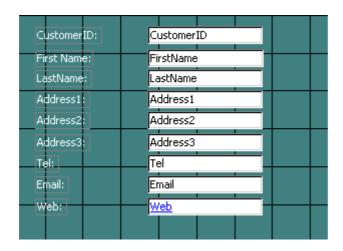


Here I am selecting the white color for my label text



Click ok and all the text in the labels you selected will have now turned white.

We have now changed the background color of the form as well as the color of label text. You can of course change the color of individual labels by clicking on each one and selecting properties and then fore color.



Close the form by clicking the X

Form1: Form

CustomerID:

CustomerID:

First Name:

First Name:

Close the form by clicking the X

CustomerID:

CustomerID:

First Name:

First Name:

First Name:

CustomerID:

Cu

I am calling it frmCustomers. Notice the prefix for forms 'frm'.

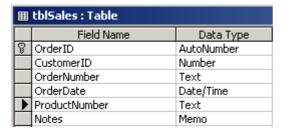


Click ok and you will now have a single form and a table in your database.

CREATING THE SUB FORM

Now that we have created a main form for recording customer information we now need to show sales information. We could do it by creating a sub form to hold sales information and link this sub form to our main customers form.

Firstly we need to create the table to store the sub form data. I have created a basic sales info table as follows:



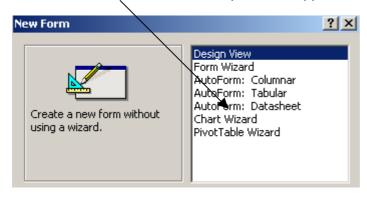
Notice I have created a CustomerID field. We also created one earlier in our customers table. This is the field that links both tables. The data type was set as an auto number earlier in out customers table and for this new sales table we should set the CustomerID field to have a data type of Number. In the properties we should then set the field size to be long integer.

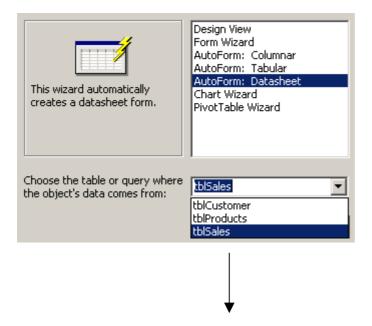
We do not have to name the linking fields with the same name. We could call one CustomerID and the other xyz if we wanted, but it makes things clearer if we keep to something which makes sense.

Recall we set the CustomerID field in the customer table to be a primary key. The CustomerID field in the sales table is what is known as a foreign key. We do not need to set it though. Just creating it and naming it is enough.

There is a way of manually linking the tables using what is known as relationships, but I will leave that for another day. Let's just get it up and running.

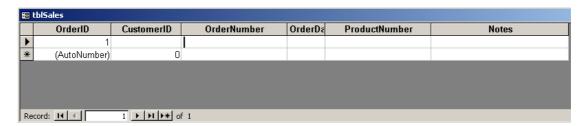
Go back to the database window and select the forms tab. Select 'New' and then select the AutoForm: Datasheet option that appears.





Select the table 'tblSales' to be the source of the form and click ok.

You should now see a datasheet as follows:



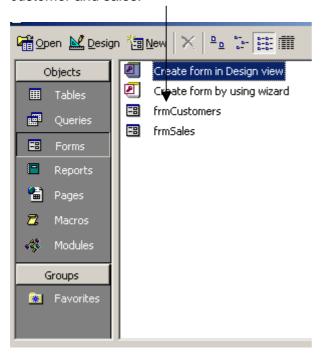
Close the datasheet by clicking the X on the top right hand side of the datasheet



Say yes when it asks if you want to save it and give it a name of frmSales

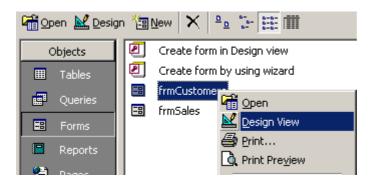


At the main database window you will now see that we have created two forms – customer and sales.



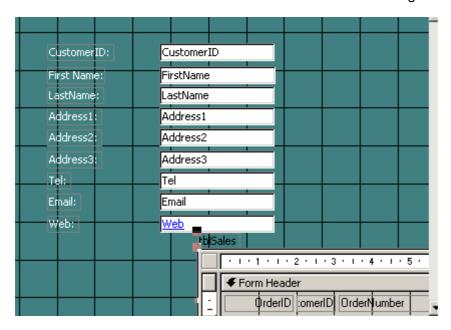
Now we need to wire the forms up so that we can see which customers have made sales.

To do this right click the frmCustomers form and select design view.

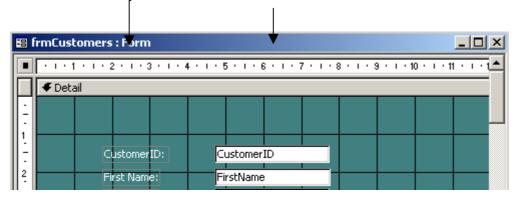


You will need to bring the database window into focus so that you can see it alongside the form. Pressing the **F11** key will show the database window.

Select the Sales form and keep the mouse button pressed while you drag it to the main Customers form. Only release the mouse button when it is in position at the bottom of the Customers form. It should look like the following:



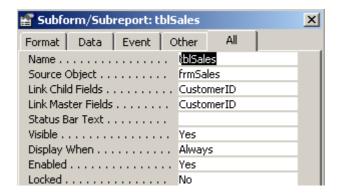
Double click the top of the form to maximise it to full screen.



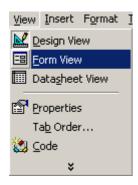
You can now drag the sub form into position. Click on the sub form so that it is highlighted. You will see small colored squares around the edges showing that your have selected it.

Move the mouse to the small square at the top left and hold and drag the form into position.

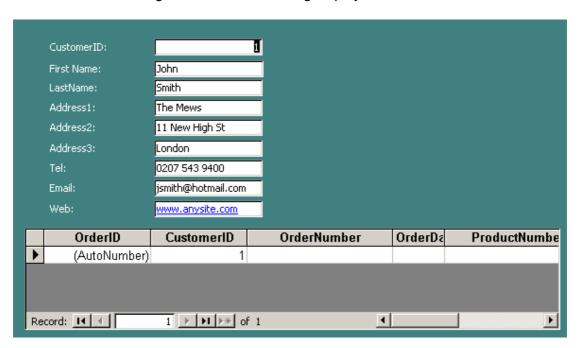
If you right click the sub form and select properties you will notice that Access has understood that you want to link the forms together via the CustomerID fields that we set up in the customer and sales tables. The properties are Link Child Fields and Link Master Fields. If the field names were different we may have to link them manually in the properties.



Run this form to check out how it looks. To do this go to the 'View' menu and select 'Form View'



You will see something similar to the following display



Try entering an order number, date etc into the fields of the sub form. Don't enter anything into the CustomerID field. Access will update this field automatically.

You can move to the next line after each entry is complete

Obviously the form needs some tidying up as we can't see all of the sub form at present, but you get the idea of how to create a simple system.

Now save your work

ADD A BUTTON TO MOVE TO A NEW RECORD

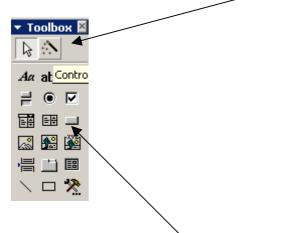
We could use the record selectors at the bottom of the form to move to each record, but it is nicer to have a visual button which we can click.

Go back to the design view of the Customers form.

At the menu bar select the toolbox icon



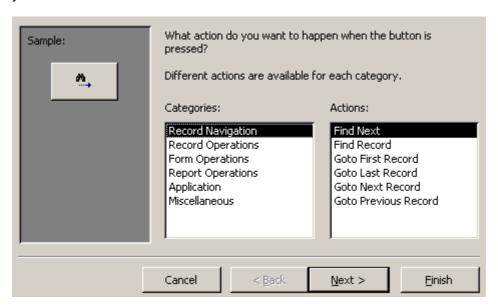
Make sure the toolbox wizard icon is pressed



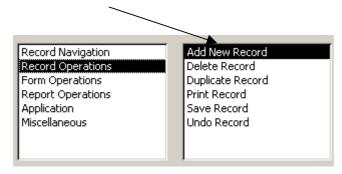
Now select the command button icon

Move your cursor to the main form and click.

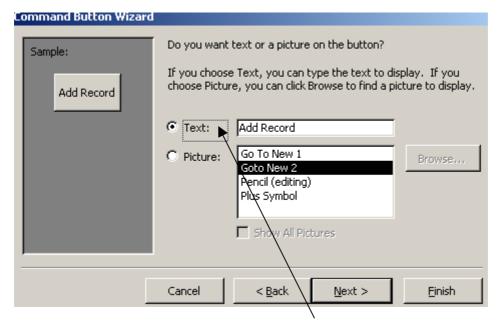
You should see the wizard box appear. If you don't see this is it is because the command button in the wizard toolbox was not pressed down. Go back and do this if you need to.



We want to select the left box option 'Record Operations and the right box option of 'Add new record'.



Now click the 'Next' button and you will see the following



Make sure you click the small button that says 'Text'.

You can change the text from Add Record to something else, but I will leave it as it is.

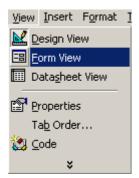
Now click 'Next'

It will ask if you want to give the button a meaningful name. This is not always necessary so I will click "Finish".

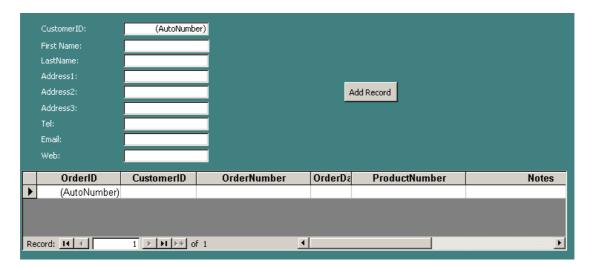


You will now see a button on the form

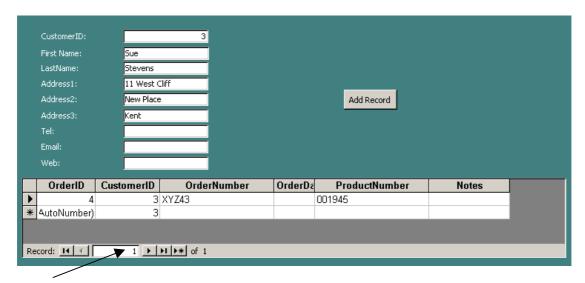
Run the form – Select the 'View' option on the menu and then 'Form View'



Click the new button you have added and the form fields will move to a new blank record for you to enter information.



You should enter information on the main form first and then the sub form.

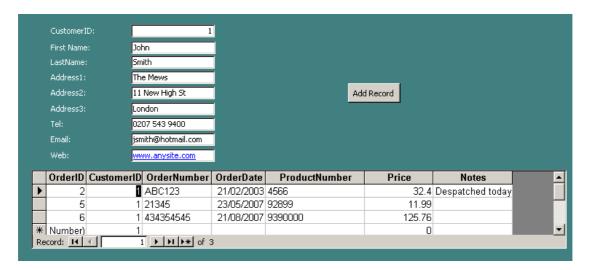


The selectors at the bottom tell you how many records you have

I have now added an additional field to the sales table called 'Price'.

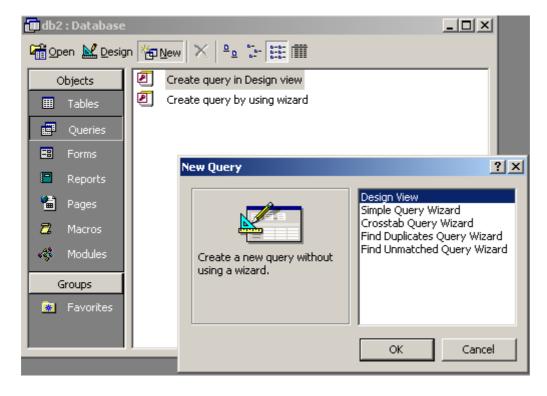
We will use this field to enter product price data on the subform. Ideally we would want to create a dropdown which selected the product and automatically dropped the price in the subform, but I will show how this is done in another tutorial.

So now our screen looks as follows:

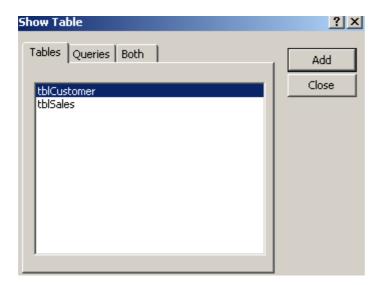


CREATE A QUERY

We can use a query to get different views of data. Go back to the database window and select the 'Query' tab. Click the 'New' button and select 'Design View'.



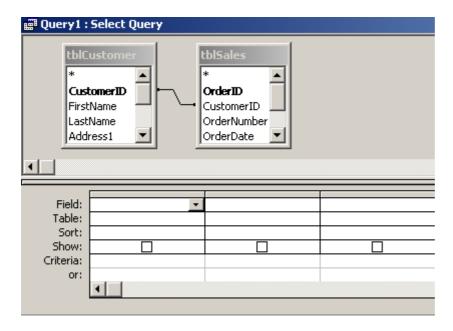
You will now see a list of tables we created earlier.



Select each table and click the 'Add' button.

Each table will appear in the query designer. Click the 'Close' button when you are done.

You will notice that the tables are linked via CustomerID. This is because once again Access recognises fields with identical names and assumes it is the primary and foreign key.



In the customers table double click the FirstName and LastName fields. You will notice these fields appear in the grid. Double click the OrderDate, ProductNumber and Price fields from the Sales table. These will also appear in the grid.

Click the Run button at the top menu

Depending on the number of records you added to the system you will see something similar to the following:

	Query1 : Select Query				
	FirstName	LastName	OrderDate	ProductNumbe	Price
•	John	Smith	21/02/2003	4566	32.4
	John	Smith	23/05/2007	92899	11.99
	John	Smith	21/08/2007	9390000	125.76
	Jackie	West	21/01/2007	093848	177.77
	Jackie	West	09/04/2001	673737	11.33
	Sue	Stevens		001945	19.99
*					

We can see for example that John Smith made 3 purchases.

Although this gives us a quick overview we can also get a more useful picture by grouping data.

Click the design button on the menu. This takes us back to the query designer.

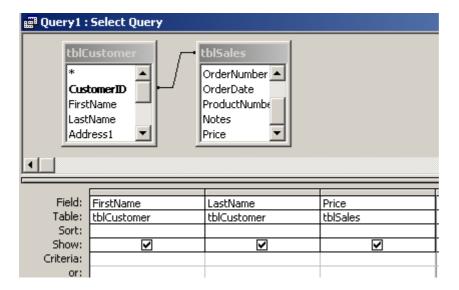
Remove the OrderDate field by clicking the bar above the name until the column highlights.

		▼	
FirstName	LastName	OrderDate	ProductNumber
tblCustomer	tblCustomer	tblSales	tblSales
✓	✓	✓	✓

Now press the 'Delete' key on your keyboard

Do the same with the 'Product Number' field

You should now be left with a display as follows:



We now want to group the names and sum so that we can get an overall total for each person.

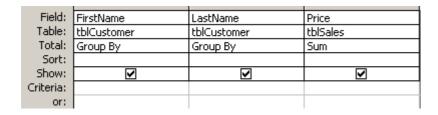
On the menu bar click the grouping button

Your grid will now show

	FirstName	LastName	Price
Table:	tblCustomer	tblCustomer	tblSales
Total:	Group By	Group By	Group By
Sort:			
Show:	>	>	>
Criteria:			
or:			

We can see that all fields now have a grouping. We want to sum the 'Price' column though so click into the 'Total' box for the price and change it's Group By to Sum.

You should now have



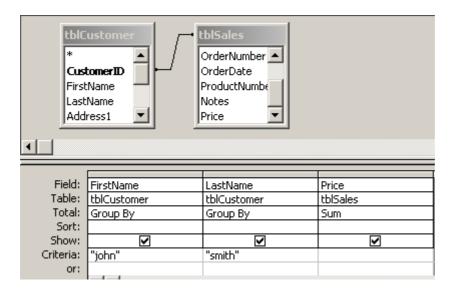
Now click the Run button ____ on the top menu

We can now see that the data has been grouped for each person and we get a running total of what they have purchased.

	FirstName	LastName	SumOfPrice
•	Jackie	West	189.1
	John	Smith	170.15
	Sue	Stevens	19.99

If you only want to see totals for individuals you can do this also.

Go back to the design view of the query and enter the first and last name into the grid.



You don't need to enter the quotation marks as MS Access will automatically do this.

Click the 'Run' button and you should see and individual total record

	FirstName	LastName	SumOfPrice
•	John	Smith	170.15

If you now save your query you can create a report based on it. Queries are a very powerful feature of MS Access and are great for reports.

I hope I have given you some useful tips on how to get started with MS Access and what can be achieved. I cover things in greater detail in further ebooks and videos.

Access is a very powerful database tool and one that can take your business forward.

HINTS AND TIPS FOR CREATING ACCESS DATABASES

When adopting a strategy in designing your Access Database it is worth considering a few important points

- Using the in built Wizards you can create quick simple solutions. Wizards are very powerful in MS Access. For more powerful customisable solutions you should think about using VBA programming code.
- Try not to embed too many photos in your database. If possible do not embed any at all. They will bloat your table and database. The best way to show images on your forms are to provide a link to them. Store them on your hard drive or server and link to them.
- If you want to show a lot of text the best data type to choose is 'Memo'. Use these sparingly though. I tend to have a field called 'Notes' on my forms and bind it to a table field with data type of 'Memo'.
- Try to give your object meaningful names. It will make maintenance easier in the long run. For example try not to name tables as table1 or queries as JohnsQuery or Query1 etc. The same goes for any object type.
- Indexes can speed up searches on your tables, but can also slow updates so use indexes sparingly.
- Normalise your tables so that there are no repeating records. You will increase the efficiency of your database.

About the author

Paul Barnett is an Access developer from London, UK and has been developing software for 15 years. He has sold his products all over the world including to companies such as IBM and MCI Worldcom.

He believes in the power of simplicity and that the system should only do what the user asks for. It should not include features that were never asked for.

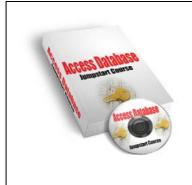
"I believe software should empower the user so that they are able to go in and change it whenever they like. I always look at it from the user points of view and not the programmers. Give them what they want. Keep it simple yet powerful."

Email him at: sellwindowsmedia@yahoo.com

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